FIG. 1A

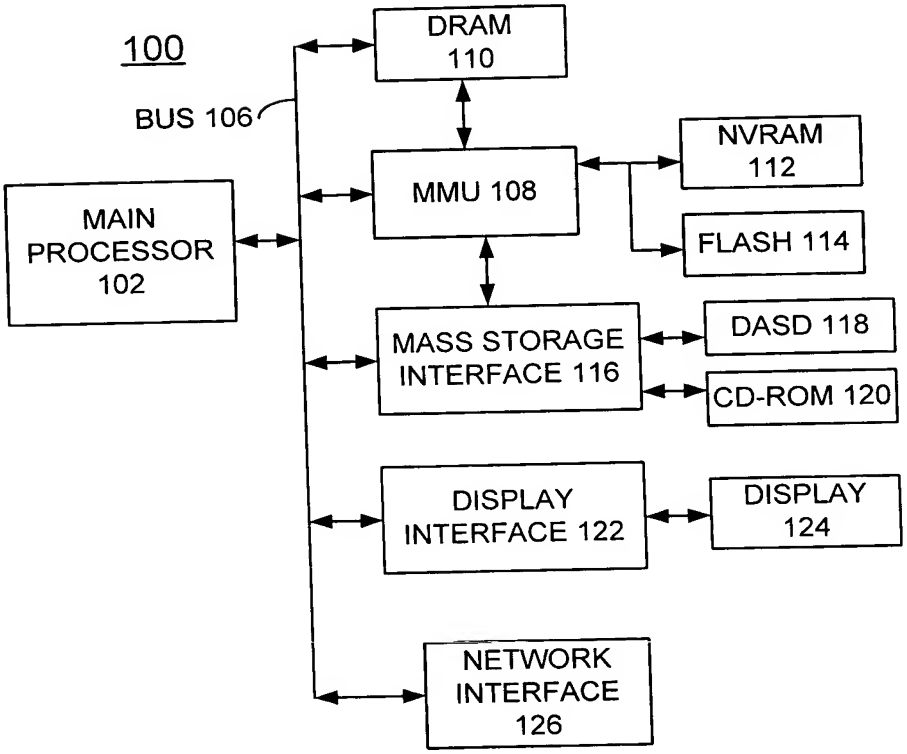
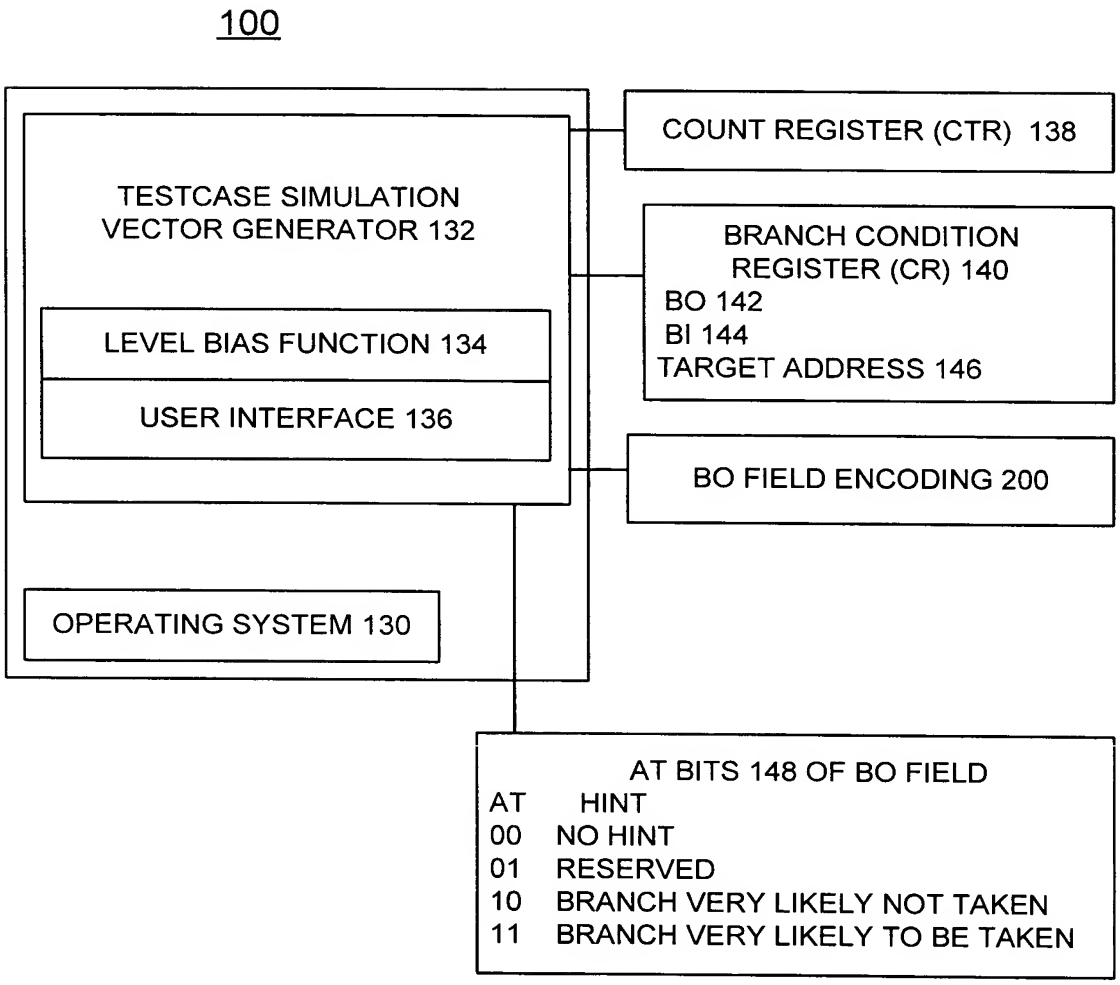

100
DRAM 110
BUS 106
NVRAM 112
MMU 108
MAIN PROCESSOR 102
FLASH 114
MASS STORAGE INTERFACE 116
DASD 118
CD-ROM 120
DISPLAY INTERFACE 122
DISPLAY 124
NETWORK INTERFACE 126

FIG. 1B


100
TESTCASE SIMULATION VECTOR GENERATOR 132
LEVEL BIAS FUNCTION 134
USER INTERFACE 136
OPERATING SYSTEM 130
COUNT REGISTER (CTR) 138
BRANCH CONDITION REGISTER (CR) 140
BO 142
BI 144
TARGET ADDRESS 146
BO FIELD ENCODING 200
AT BITS 148 OF BO FIELD
AT HINT
00 NO HINT
01 RESERVED
10 BRANCH VERY LIKELY NOT TAKEN
11 BRANCH VERY LIKELY TO BE TAKEN

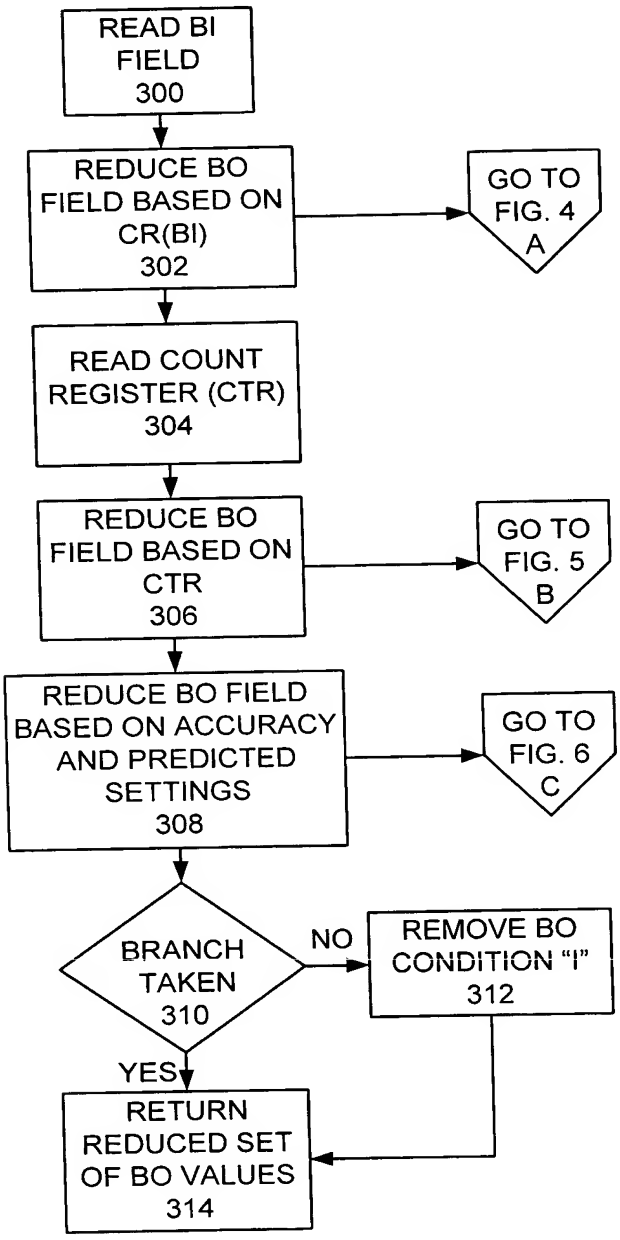
B0 FIELD ENCODINGS
200

B0 142

0000z	DECREMENT THE CTR, THEN BRANCH IF THE DECREMENTED CTR(M:63) ≠ 0 AND CR(BI) = 0	A
0001z	DECREMENT THE CTR, THEN BRANCH IF THE DECREMENTED CTR(M:63) = 0 AND CR(BI) = 0	B
001at	BRANCH IF CR(BI) = 0	C
0100z	DECREMENT THE CTR, THEN BRANCH IF THE DECREMENTED CTR(M:63) ≠ 0 AND CR(BI) = 1	D
0101z	DECREMENT THE CTR, THEN BRANCH IF THE DECREMENTED CTR(M:63) = 0 AND CR(BI) = 1	E
011at	BRANCH IF CR(BI) = 1	F
1a00t	DECREMENT THE CTR, THEN BRANCH IF THE DECREMENTED CTR(M:63) ≠ 0	G
1a01t	DECREMENT THE CTR, THEN BRANCH IF THE DECREMENTED CTR(M:63) = 0	H
1z1z2	BRANCH ALWAYS	I

FIG. 2

FIG. 3


READ BI FIELD 300
REDUCE BO FIELD BASED ON CR(BI) 302
GO TO FIG. 4 A
READ COUNT REGISTER (CTR) 304
REDUCE BO FIELD BASED ON CTR 306
GO TO FIG. 5 B
REDUCE BO FIELD BASED ON ACCURACY AND PREDICTED SETTINGS 308
GO TO FIG. 6 C
BRANCH TAKEN 310
NO
REMOVE BO CONDITION "I" 312
YES
RETURN REDUCED SET OF BO VALUES 314

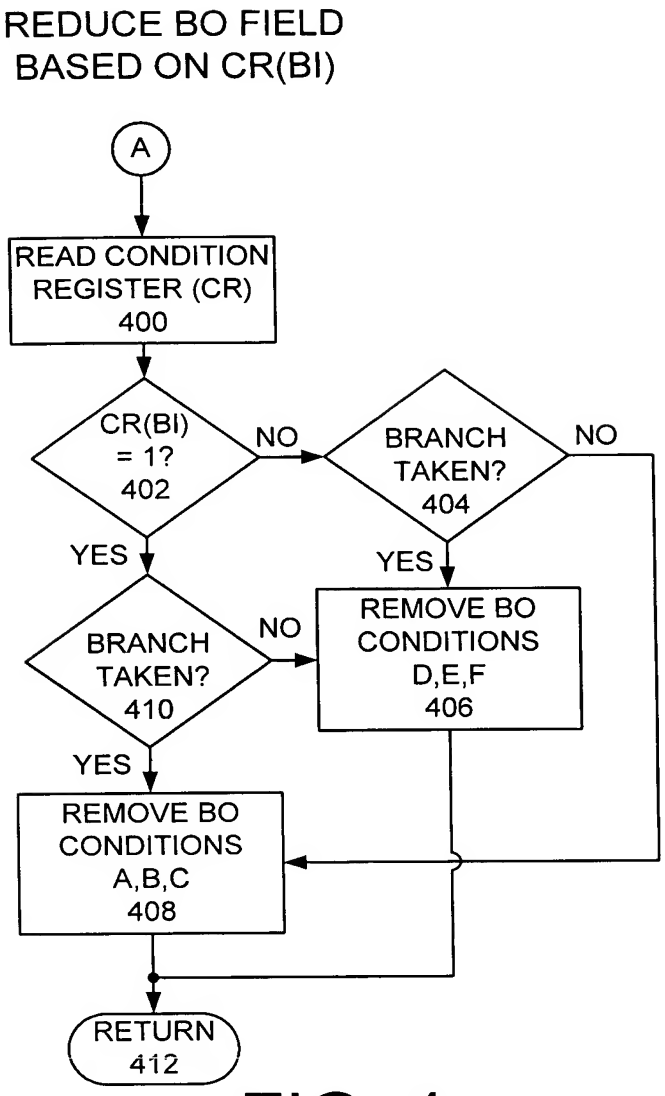

REDUCE BO FIELD
BASED ON CR(BI)
A
READ CONDITION
REGISTER (CR)
400
CR(BI)
= 1?
402
NO
BRANCH
TAKEN?
404
NO
YES
YES
BRANCH
TAKEN?
410
NO
REMOVE BO
CONDITIONS
D,E,F
406
YES
REMOVE BO
CONDITIONS
A,B,C
408
RETURN
412

FIG. 4

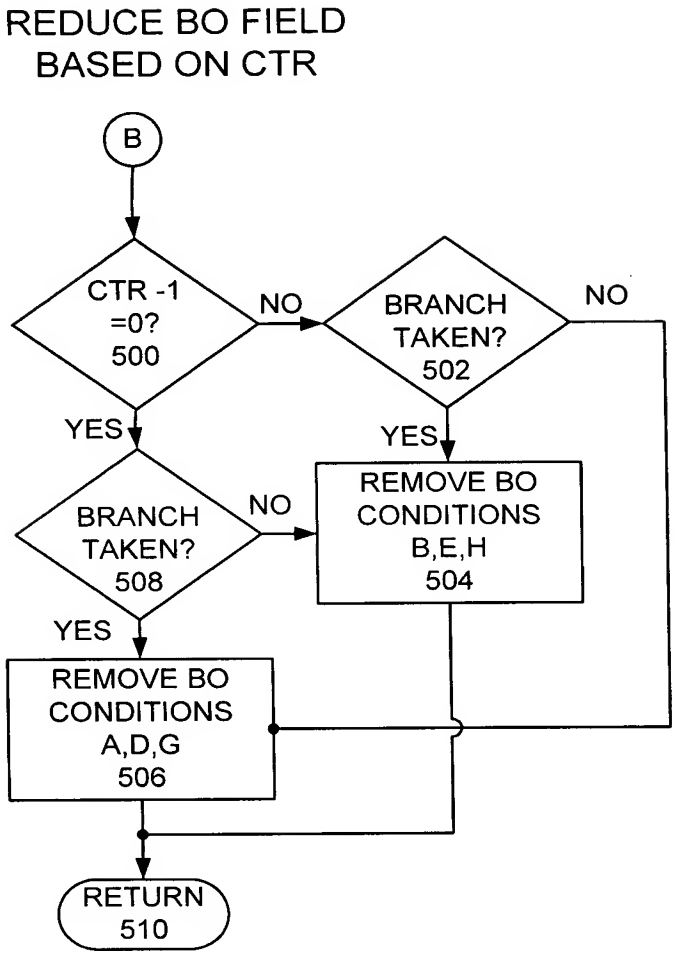

REDUCE BO FIELD
BASED ON CTR
B
CTR -1
=0?
500
NO
BRANCH
TAKEN?
502
NO
YES
YES
BRANCH
TAKEN?
508
NO
REMOVE BO
CONDITIONS
B,E,H
504
YES
REMOVE BO
CONDITIONS
A,D,G
506
RETURN
510

FIG. 5

REDUCE BO FIELD BASED ON
ACCURACY AND PREDICTED SETTINGS

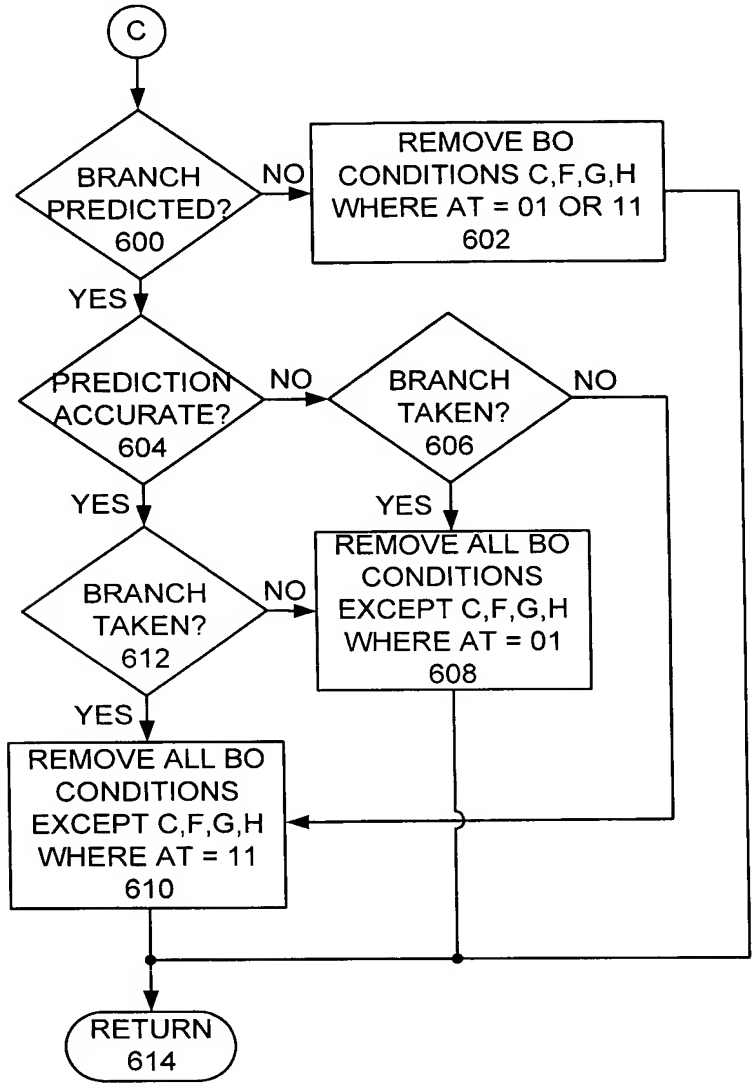


FIG. 6

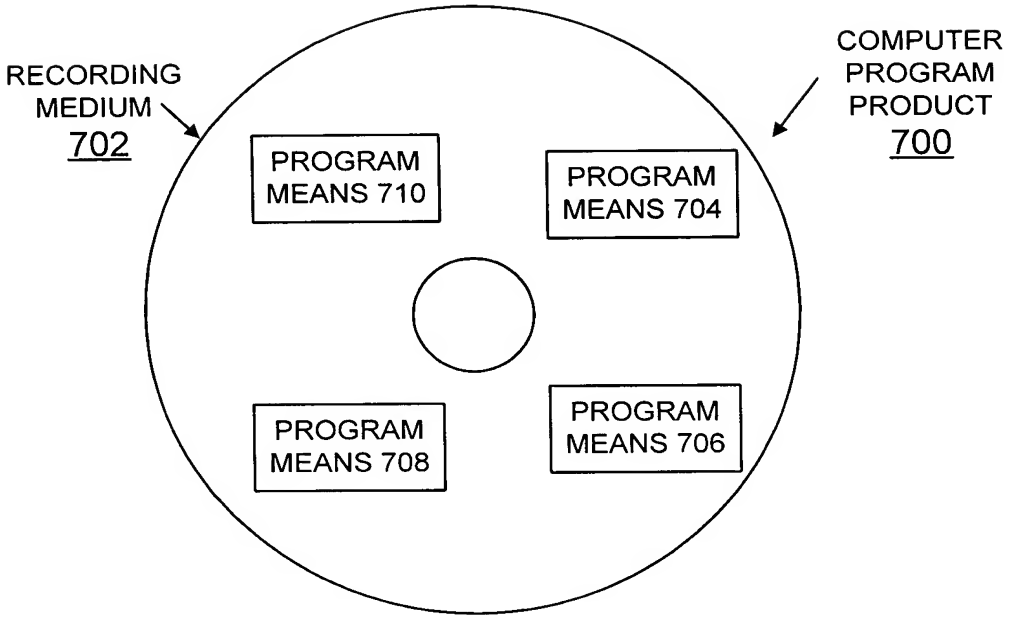

RECORDING MEDIUM
702
COMPUTER PROGRAM PRODUCT
700
PROGRAM MEANS 710
PROGRAM MEANS 704
PROGRAM MEANS 708
PROGRAM MEANS 706

FIG. 7